

(Herb. Univ. of California); on north-facing rock wall above Grayson's Cove, very dry habitat, alt. 1000 ft., May 4, 1925, *H. L. Mason*, no. 1616 (TYPE, in Herb. California Acad. Sci.).—CLARION ISLAND: just below the summits of the hills, where it is locally abundant in the brush, April 27, 1925, *Mason*, no. 1571.

The specimens from Clarion Island are much larger than those from Socorro, the fronds reaching 3 dm. in height, and the rachises are nearly glabrous. But occasional persistent fibrils and scales of the kind described above, and numerous pustulate bases of scales which have weathered off indicate that they bore an indument similar to that of the type specimens.

In typical *Ch. peninsularis* the scales of rachis and costae are linear-lanceolate with dilated, erose-serrulate bases and more or less papillate-serrulate blades. Specimens from Comondu, Lower California, collected by *Brandege*, Feb. 6, 1889, are intermediate in their indument between typical form and variety, in some individuals approaching the latter rather closely.

The Townsend and Anthony collections here cited were determined as "near *Cheilanthes Wrightii*" or unqualifiedly as that species. This seems to me correctly to express their general relationship. *Ch. peninsularis* is near *Ch. Wrightii*. The latter, however, has usually a narrower (lanceolate) lamina. All but the upper pinnae are deltoid (instead of oblong-ovate, as in *Ch. peninsularis*), and the pinnules are commonly rather narrowly oblong (instead of oblong-ovate). Rachis and costae are usually glabrous; in the infrequent cases where they bear a sparse paleaceous indument, its scales are smaller, more delicate, and smaller-celled than in *Ch. peninsularis*.—C. A. WEATHERBY, *Gray Herbarium*.

FIREWORKS FROM A "FERN."—It has long been a matter of general knowledge to the writer that *Lycopodium* spores can be used as fireworks material, but it is only

recently that an actual test of this fact has been made in the field. Very possibly it is familiar to many readers of the FERN JOURNAL, but on the chance that there may be others who have not tried it, this note is published.

On a recent trip near Greenwood Lake, N. Y., colonies of fruiting Lycopodiums (*L. obscurum*, *L. complanatum*, *L. clavatum*), were found near Cedar Pond, one of the northern localities for the southern white cedar. The fruiting spikes were in a condition to discharge their spores at a slight touch. When a burning match was held in readiness the spores ignited with a little puff.

Later, in the city, an ounce of *Lycopodium* spores was purchased at a drug store and a material was used for an entertainment demonstration at the start of a general science class period. Apparently a definite condition of suspension in the air is necessary for the flashing effect. When a match was held to a small quantity of the spore powder on a stone window ledge, nothing happened; when a small quantity of the powder was placed on a thin copper plate and heated over a Bunsen burner the spores scorched and blackened but did not flash. When, however, a pinch was dropped into the flame of a burning match, an instant pyrotechnic display was obtained.

The material was of special interest to the chemistry teacher of the department as being more suitable for demonstrations of the explosive quality of dust than the ordinary substances used in this connection. Any one interested to try it is cautioned against using too much at a time. It seems entirely likely that a dangerous explosion might be produced if a considerable quantity were released in the air of a room.

WHAT FERNS MAY BE WEEDS?—Some years ago, in the course of a lecture on ferns delivered in Boston, I made a statement to the effect that ferns are retiring; the denizens of the wild, and not happy under conditions of